

## ABSTRACT

One of the violations that often occur in Indonesia is a problem related to traffic violations. Traffic violations on the road or in public places are very often done, especially on the use of sidewalks by motorbikes. Often the authorities carry out orderly traffic operations on the highway, such as any sidewalks so that not a few who violate traffic rules. Not infrequently the violations cause traffic accidents. Because of that we need technology or solution that can handle this problem.

Amans is a technology based on Raspberry pi 3 that can detect motorcycle licence plate on the sidewalks. Amans uses the *Deep Neural Network* (DNN) and Combining with YOLO (You Only Look Once) system as its algorithm so that Amans can detect and copy letters and numbers on a motorized vehicle plate. Amans Detects the shape of the vehicle's license plate and then retrieves the state of the incident and will be stored in the form of photos to be sent to the Authorized Officer Data Base. With that system Amans can assist the parties involved in managing traffic problems in Indonesia specially on the sidewalk.

Amans can detect motorized vehicle plates accurately using either the camera in real time or image media with the distance range 1-4 meter. by using the SBC (Single Board Computer) that is Raspberry Pi 3 and Webcam USB with cheap price Amans tool has quite good results. The level of accuracy of Amans is quite good at 76.6% of the trial success rate.

Keywords: Raspberry pi, DNN, YOLO, Pedestrian, Success rate 76.6% , Licence Plate, sidewalk.